REMARKS/ARGUMENTS

Claims 1 through 34 remain in this application. Claims 1 and 19 have been amended. No claims are cancelled. No claims are added. Accordingly, claims 1 through 34 remain pending.

Applicant has thoroughly reviewed the outstanding Office Action including the Examiner's remarks and the references cited therein. The following remarks are believed to be fully responsive to the Office Action and, when coupled with the above amendments, are believed to render all claims at issue patentably distinguishable over the cited references.

Applicants respectfully requests reconsideration in light of the following remarks.

CLAIM OBJECTION

With respect to Page 2 of the Office Action, the Examiner objected the Claims.

The Examiner is of the opinion that Claims 1 and 19 were objected to because of the spelling could be improved. In Claims and 19, the "andsaid" amended with -- and said--. Thus, the Examiner's objection can be traversed.

CLAIM REJECTION-35 U.S.C SECTION 102 (b)

With respect to Page 2 through Page 3 of the Office Action, the Examiner rejected Claims 1-4, and 14-16 that were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,329,625 to Kannan et al.

The Examiner alleges that Kannan et al anticipates the above Claims. Kannan et al disclosed the **host processor (or main processor 22) communicates with the service processor 22 through an "interface" comprising "a status register", "an input buffer" and "an output buffer" through which host commands and data are transferred** (Abstract).

The host processor (or main processor 22) is **"interrupted" to receive the processed** data and executes in a tight loop until a predetermined amount of processed data is received (Abstract).

DTC includes four different programmable digital microprocessors or microcontrollers comprising **a host or main processor 22, a service processor (SP) 24**, a **digitizer controller 26**, and **a power system microcontroller (PSM) 28**, which perform various distributed functions or operations (col. 3, lines 22-28). Moreover, while **controls handle other interrupts commonly directed to processor 22 (or main processor), controls receive two "interrupts", which includes PUCINT, IRQ1 that are transmitted to controls from service processor 24** (col. 3, lines 60-66).

SP 24 interface with host processor (or main processor) 22

through a PS/2 keyboard interface, with keyboard over a standard PS/2 keyboard interface with digitizer over an "interrupt driven serial interface", and with power subsystem over a "**polled serial interface similar to the keyboard interface"** (col. 4, line 63-col. 5, line 6).

In addition, Kannan et al disclosed the interface between host system 130 and SP 24 comprises **three "8-bit registers"**: output buffer 136, input buffer 134, and CSR (controller status register) 132. Such **hardware is similar to a standard PS/2 keyboard controller interface and is implemented using a "built-in Universal Peripheral Interface (UPI)" of the specific microprocessor** forming the service processor, with some external glue logic (col. 5, lie 64-col.6, line 3)

Regards as amended Claim 1, **controlling means having a communication interface installed therein**, the control means serving for reading and processing said first input signal, which is generated from a first input module, and said second input signal, which is generated from a second input module.

Furthermore, the first input signal and second input signal are stored respectively corresponding thereto, wherein the first information represents the first input data and the second information represents the second input data, and the **"communication interface serving for sending the first information and the second information stored in the control means to a computer host by a polling method"**.

Respect to the present invention, the **communication interface**

between the **computer host** and **input module** (keyboard and digitizer tablet system) is **"universal serial bus interface"** (as Claim 15 recited). In the recitation of the application, **USB served as a message communication channel between the micro-controller and computer host** (page 6, line 10-13). The **keyboard device and the digitizer tablet system can "share" the universal serial bus interface merely having an endpoint 0 and an endpoint 1**. The **endpoint 0 of the USB is used for receiving and sending data**, and the **endpoint 1 of USB is used for merely sending data,** i.e., sending data from computer peripheral devices, such as keyboard and digitizer tablet to the computer host. Therefore, the **input data of the keyboard device and digitizer tablet system can be sent to the computer host through "endpoint 1 of the USB", by running the executing program of the micro-controller** (page 6, line 26-31). When the **"USB interface polls input data stored in the micro-controller, the actuated key data is then sent to the computer host through the endpoint 1 of the USB interface"**.

According to the disclosure of Kannan et al, the **communication interface comprises status register, an input buffer, and an output buffer** (see Abstract). Also, in the disclosure of Kannan et al, the **interface between host system 130 and SP (service processor) 22 comprise three 8-bit registers:** output buffer 136, input buffer 134, and CSR (controller status register) 13 (col. 5, lines 64-66). Such hardware is similar to a standard PS/2 keyboard controller interface and is implemented using a built-in **"Universal Peripheral Interface (UPI)"** of the **specific microprocessor forming the service processor** 24, with some external glue logic (col. 5, line 67-col. 6, line 3).

The communication interface between Kannan et al and the present invention is different. Because of the present invention recited the **communication interface is Universal interface bus**, which **has endpoint 0 and endpoint 1** that **used to send and receive the data**, wherein endpoint 0 o the universal interface bus is used for receiving and sending data, and endpoint 1 of the universal peripheral bus is used for sending data, i.e., sending data from the computer peripheral devices, such as keyboard and digitizer tablet, to the computer host.

The disclosure of Kannan et al that the communication interface comprises **three 8-bit registers (I/O ports):** output buffer 136, input buffer 134, and CSR (controller status register) 13. Such hardware is similar to a standard PS/2 keyboard controller interface and is implemented using a built-in **"Universal Peripheral Interface (UPI)"** of the **specific microprocessor forming the service processor** 24. The three 8-bit registers (I/O ports) **DID NOT** have the **endpoint 0 and the endpoint 1 therein that are used to send and receive data**. The CSR of the three 8-bit register (I/O ports) can be read by the host at address x64, and the CSR has 8-bit, some of its bits are written by hardware, other are written by the SP microcode; the bits signal whether the SP detected internal errors or timeouts, whether the bytes in the input buffer is host command byte (to execute by SP) or a 'data' byte (to be passed to the keyboard without interpretation) (col. 6, lines 16-25). Thus, **receiving and sending data is in accordance with the bit and at address x64** as Kannan et al disclosed which differs from the **endpoint 0 and endpoint 1 of the universal serial bus interface that is used to send the data from the computer**

peripheral devices.

In addition, the communication interface serving for sending the first information and the second information stored in the control means to a computer host **by a polling method**. Respect to Kannan et al, Input and Output Buffers are identical to the PS/2 keyboard controller input and out put buffers and are referred to herein as INBUF and OUTBUF, wherein the OUTBUF is where SP writes data for the host, INBUF is where the host writes data or commands for the SP (col. 7, lines 26-31).

Kannan et al also disclosed that SP **"interrupt"** are enabled; SP interrupts the host after it places a byte in the output buffer, except during digitizer data transmission, when it only interrupts on the first byte. Also, according to the disclosure of Kannan et al, sending information and receiving information of the SP is using "interrupt", which differs from the **endpoint 0 and endpoint 1 of the USB interface that sending and receiving information** as the present invention recited. Therefore, according to abovementioned, the present invention has many features that is different between Kannan et al. Thus, Kannan et al cannot anticipate above the Claims 1-4, and 14-16. Thus, the Examiner's rejection can be traversed.

CLAIM REJECTION-35 U.S.C. SECTION 103 (a)

With respect to Page 3 through Page 5 of the Office Action, the Examiner rejected Claim 5-6, 8-9, 12, 19-22, 25, and 27-29 that were rejected under 35 U.S.C. 103 (a) as being unpatentable over Kannan et al in view of Abernethy (U.S. Patent No. 5,525,981)

The Examiner alleges that the combination of the disclosure of Kannan et al in view of Abernethy et al (U.S. Patent No. 5,525,981) can unpatentable above Claims. Aberenthy et al disclosed a cordless transducer/cursor having a transmitter for use in conjunction with the receiver of a digitizer tablet (see Abstract). The status means comprises a pressure-to-digital converter outputting a parallel binary signal indicating levels of pressure being exerted on the cordless transducer/cursor (col.2, lines 10-13). In addition, the cordless transducer/cursor is in the combination with a digitizer tablet for **receiving the serial stream of binary pulses wirelessly transmitted from the transducer/cursor** wherein the tablet includes receiver means for receiving the serial stream of binary pulses wirelessly transmitted from the transducer/cursor (col. 2, lines 14-19).

The digital signal representing the pressure being applied by the transducer/cursor. The pressure signal is produced by a pressure-to-digital converter, which produces, for example, a four-bit binary signal which can represent sixteen magnitudes of pressure.

According to the disclosure of Abernethy et al, the cordless transducer/cursor is in the combination with a digitizer tablet for **receiving the serial stream of binary pulses wirelessly transmitted from the transducer/cursor** wherein the tablet includes receiver means for **receiving the serial stream of binary pulses wirelessly transmitted from the transducer/cursor**. Abernethy et al **DID NOT** disclosed the keyboard serving for inputting **first input data**, and generates a **first input signal** (actuated key data); and a digitizer tablet devices serving for inputting a **second input data,** and

generating **a second input signal.** Nevertheless, Abernethy et al did not disclose the transforming the second input signal to a first digital signal and a second digital signal. Abernethy et al only disclose the tablet includes receiver means for **receiving the serial stream of binary pulses wirelessly transmitted from the transducer/cursor**. The binary pulse signal did not definition to include the first input digital signal and a second digital signal respectively. Furthermore, according to the abovementioned rejection 102 (b), the disclosure of Kannan et al cannot anticipate the present invention. Thus, the combination of the Kannan et al in view of Abernethy et al also cannot unpatentable the above claims. Thus, the Examiner's rejection can be traversed.

In addition, with respect to Page 5 of the Office Action, the Examiner rejected Claim 7 that were rejected under 35 U.S.C. 103 (a) as being unpatentable over Kannan et al and Abernethy et al as applied to claim 6 above, and further in view of Cheng et al (U.S. Patent No. 5,365,253).

Cheng disclosed the micro-controller unit of the digitizer device is respectively connected to a host computer, and a main clock, which provides pulse waves (col. 2, lines 26-29). The micro-controller unit send a start signal to a data counter and the frequency divider respectively, causing the data counter and the frequency divider to reset (col. 2, lines 38-41). If the mouse (stylus) projects a signal onto the X-Y grid of the digitizer, the data counter immediately inductively receives the signal, and the induced the signal is then sent to **anti-noise circuit (which is consisted of passive components and amplifiers)**... (col. 2, lines 42-48). The anti-noise circuit **attenuates**

external noise of frequency beyond the range of 15KHz to 150 KHz, from a CRT monitor, so as **to eliminate external frequencies (from CRT monitor or other interference sources** and improve the signal noise ratio.

The combination of the disclosure of Kannan et al and Abernethy et al as applied to claim 6 above, and further in view of Cheng et al cannot unpatentable the present invention. Because of the anti-noise circuit, which consist of **passive components and amplifiers used to eliminate the external frequencies from the CRT monitor, and amplifying the signal to the X-Y grid 1 to the Y grid selector 5Y and the X grid selector 5X respectively, wherein the signal is generated from the mouse (stylus).** Furthermore, Cheng et al disclosed the signal is to be amplified in accordance with the noise, which is generated from the CRT, **so as to the X-Y gird coordinate would be not display accurately.**

The purpose of the amplified the signal and eliminate the signal is different between Cheng et al and present invention. Because of the **inducing currents is weak and needs to be amplified** for enabling further process as the present invention recited, which differs from the Y-grid selector 5Y and the X-grid selector 5X respectively as Cheng et al disclosed. Furthermore, Cheng et al is **used to obtain an accurate display X-Y grid,** which also differs from the inducing current too weak to be amplified, so as to the signal can be processed. Thus, according to abovementioned description, the combination of the disclosure of Kannan et al in view of Abernethy et al cannot unpatentable the present invention, therefore, the combination of the disclosure of Kannan et al and Abernethy et al as applied to claim 6

above, and further in view of Cheng et al also cannot unpatentable the above claims. Thus, the Examiner's rejection can be traversed.

Also, with respect to Page 5 through Page 6 of the Office Action, the Examiner rejected Claim 10-11, and 23-24 that were rejected under 35 U.S.C. 103 (a) as being unpatentable over Kannan et al and Abernethy et al as applied to claims 6 and 19 above, and further in view of Mletzko (U.S. Patent No. 4,992,630).

The Examiner alleges that Mletzko taught a pressure signal waveform generation circuits comprising a comparator circuit. Nevertheless, according to abovementioned, the combination of disclosure of Kannan et al and Abernethy et al cannot unpatentable the present invention. Even Mletzko taught a pressure signal waveform generation circuits comprising a comparator circuit, the combination of the disclosure of Kannan et al and Abernethy et al as applied to claims 6 and 19 above, and further in view of Mletzko still cannot unpatentable. Therefore, the Examiner's rejection can be traversed.

Therefore, with respect to Page 6 through Page 7 of the Office Action, the Examiner rejected Claims 1 and 26 that were rejected under 35 U.S.C. 103 (a) as being unpatentable over Kannan et al and Abernethy et al as applied to claims 6 and 19 above, and further in view of Chao (U.S. Patent No. 6,180,894); and Claims 17 and 18 that were rejected as being over unpatentable over Kannan et al in view of Niedzwiecki (U.S. Patent No. 5,896,125) also can be traversed. Because of the combination of Kannan et al and Abernethy et al as applied to claims 6 and 19 above have been traversed that according

to above response, therefore, the Claims 1 and 26 can be traversed. In addition, the disclosure of Kannan et al cannot be anticipate the present invention in accordance with the response for 102(b), thus, the combination of the disclosure of Kannan et al in view of Niedzwiecki also can be traversed. Thus, the Examiner's rejection also can be traversed.

Conclusion

In the light of the above amendments and remarks, Applicant respectfully submits that all pending Claims 1 through 34 as currently presented are in condition for allowance. Applicant has thoroughly reviewed that art cited but relied upon by the Examiner. Applicant has concluded that these references do not affect the patentability of these claims as currently presented. Accordingly, reconsideration is respectfully requested.

This Amendment has been prepared by Applicant and is being filed by the undersigned attorney on Applicant's behalf.

Respectfully submitted,

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